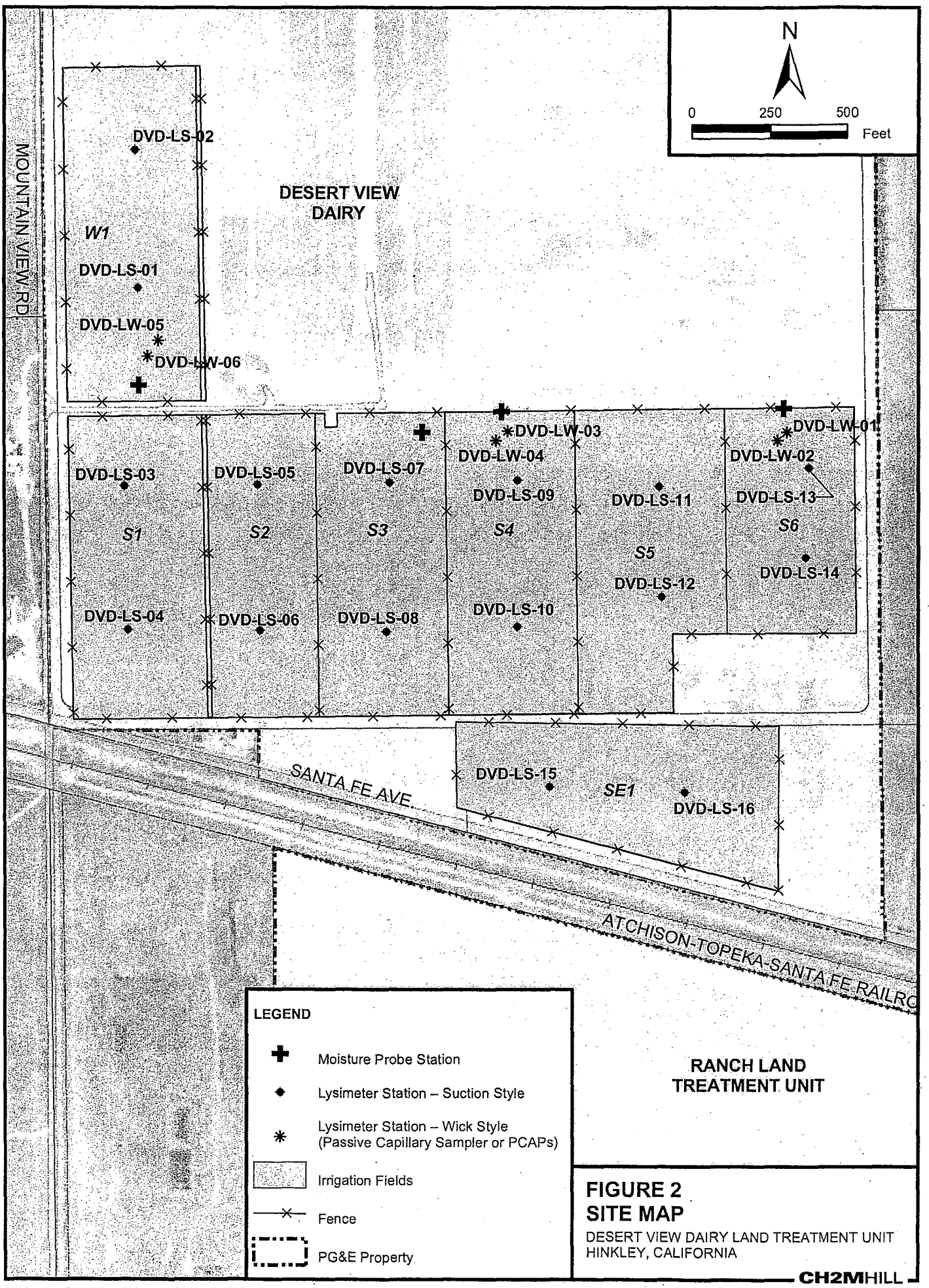


FIGURE 2
SITE MAP
DESERT VIEW DAIRY LAND TREATMENT UNIT
HINKLEY, CALIFORNIA

CH2MHILL

BAO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\HINKLEYREMEDIATIONPROJECT\GIS\MXDS\IP_INTERIMPUMPING\2007\IP_SITE_MAP_0607.MXD
IP_SITE_MAP_0607.PDF 6/27/2007 10:51:55

ATTACHMENT B

SODIUM NITRATE MATERIAL SAFETY DATA SHEET

MSDS Number: **S4442** * * * * * *Effective Date: 07/03/07* * * * * *Supercedes: 05/07/07*

MSDS Material Safety Data Sheet

From: **Mallinckrodt Baker, Inc.**
222 Red School Lane
Phillipsburg, NJ 08865

Mallinckrodt CHEMICALS J.T.Baker

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. and Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

SODIUM NITRATE

1. Product Identification

Synonyms: Nitratine; nitric acid, sodium salt; sodium saltpeter; sodium nitrate, crystal
CAS No.: 7631-99-4
Molecular Weight: 84.99
Chemical Formula: NaNO3
Product Codes:
J.T. Baker: 3770, 3771, 4501
Mallinckrodt: 4484, 7709, 7793, 7796, 7808, 7811

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Nitrate	7631-99-4	99 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate
Flammability Rating: 0 - None
Reactivity Rating: 3 - Severe (Oxidizer)
Contact Rating: 2 - Moderate
Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
Storage Color Code: Yellow (Reactive)

Potential Health Effects

Inhalation:
Inhalation of dust irritates the respiratory tract. Symptoms may include coughing, shortness of breath.
Ingestion:
May cause gastroenteritis and abdominal pains. Other symptoms may include dizziness, bloody diarrhea, convulsions, and collapse. Purging and diuresis can be expected. Small repeated doses may cause headache and mental impairment. Rare cases of nitrates being converted to the more toxic nitrites have been reported, mostly with infants.
Skin Contact:
May cause irritation, symptoms including redness, itching, and pain.
Eye Contact:
May cause irritation, symptoms including redness, itching, and pain.
Chronic Exposure:
Under some circumstances methemoglobinemia occurs in individuals when the nitrate is converted by bacteria in the stomach to nitrite. Nausea, vomiting, dizziness, rapid heart beat, irregular breathing, convulsions, coma, and death can occur should this conversion take place.
Aggravation of Pre-existing Conditions:
Workers with a history of kidney or lung disease may be more susceptible to the effects of this substance.

4. First Aid Measures

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact:
Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and

water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

Explosion:

Explosive with shock, heat or friction. Sodium Nitrate decomposes explosively when heated > 538C (1000F). Sensitive to mechanical impact.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool.

Special Information:

Wear full protective clothing and breathing equipment for high-intensity fire or potential explosion conditions. This oxidizing material can increase the flammability of adjacent combustible materials.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. Small amounts of residue may be flushed to sewer with plenty of water.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
None established.
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.
Personal Respirators (NIOSH Approved):
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:
White crystals.
Odor:
Odorless.
Solubility:
81.5 g/100 g water @ 15C (59F)
Specific Gravity:
2.26
pH:
Aqueous solution is neutral.
% Volatiles by volume @ 21C (70F):
0
Boiling Point:
380C (716F)
Melting Point:
308C (586F)
Vapor Density (Air=1):
No information found.
Vapor Pressure (mm Hg):
No information found.
Evaporation Rate (BuAc=1):
No information found.

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
Emits nitrous oxides when heated to decomposition.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Reacts with acids to emit toxic fumes of nitrogen dioxide. Contact with the following may cause an explosion: barium rhodanide, boron phosphide, cyanides, sodium thiosulfate, sodium hypophosphite, sulfur plus charcoal, powdered aluminum and aluminum oxide. Fibrous organic material such as jute, wood, and similar cellulosic materials can become highly combustible by nitrate impregnation.
Conditions to Avoid:
Heat, flame, ignition sources, shock, friction, incompatibles.

11. Toxicological Information

Oral rat LD50: 1267 mg/kg. Investigated as a tumorigen, mutagen, reproductive effector.

--------\Cancer Lists\----------

Ingredient	---NTP Carcinogen--- Known	Anticipated	IARC Category
Sodium Nitrate (7631-99-4)	No	No	None

12. Ecological Information

Environmental Fate:
No information found.
Environmental Toxicity:
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: SODIUM NITRATE
Hazard Class: 5.1
UN/NA: UN1498
Packing Group: III
Information reported for product/size: 100LB

International (Water, I.M.O.)

Proper Shipping Name: SODIUM NITRATE
Hazard Class: 5.1
UN/NA: UN1498
Packing Group: III
Information reported for product/size: 100LB

15. Regulatory Information

--------\Chemical Inventory Status - Part 1\---------------------------------

Ingredient	TSCA	EC	Japan	Australia
Sodium Nitrate (7631-99-4)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\---------------------------------

		--Canada--		
Ingredient	Korea	DSL	NDSL	Phil.
Sodium Nitrate (7631-99-4)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\----------------

	-SARA 302-		------SARA 313------	
Ingredient	RQ	TPQ	List	Chemical Catg.
Sodium Nitrate (7631-99-4)	No	No	No	Nitrate Cmpd

--------\Federal, State & International Regulations - Part 2\----------------

		-RCRA-	-TSCA-
Ingredient	CERCLA	261.33	8(d)
Sodium Nitrate (7631-99-4)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
Reactivity: Yes (Pure / Solid)

Australian Hazchem Code: 1[T]
Poison Schedule: None allocated.
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

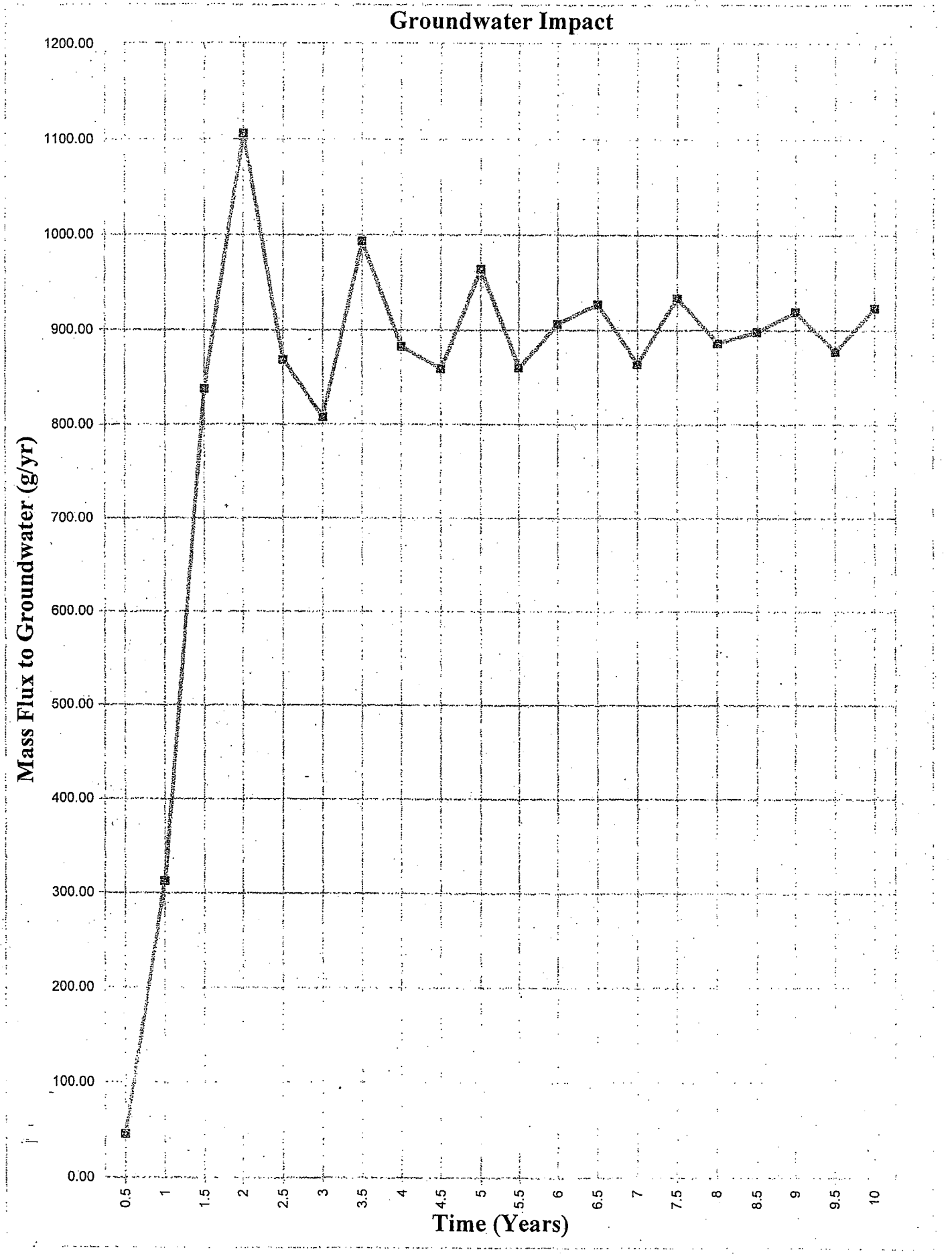
NFPA Ratings: Health: **1** Flammability: **0** Reactivity: **1** Other: **Oxidizer**
Label Hazard Warning:
DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.
Label Precautions:
Keep from contact with clothing and other combustible materials.
Store in a tightly closed container.
Remove and wash contaminated clothing promptly.
Avoid breathing dust.
Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.
Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. In all cases, get medical attention.
Product Use:
Laboratory Reagent.
Revision Information:
MSDS Section(s) changed since last revision of document include: 3.
Disclaimer:
****

Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.
****

Prepared by: Environmental Health & Safety
Phone Number: (314) 654-1600 (U.S.A.)

ATTACHMENT C

VLEACH MODEL RESULTS


Groundwater Impact
Mass Flux to Groundwater (g/yr)
1200.00
1100.00
1000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
7.5
8
8.5
9
9.5
10
Time (Years)

```
|-------------------------------------------------------------|
|                VLEACH (Version 2.2a, 1996)                  |
|                                                             |
|                          By:                                |
|        Varadhan Ravi and Jeffrey A. Johnson                 |
|                  (USEPA Contractors)                        |
|        Center for Subsurface Modeling Support               |
|        Robert S. Kerr Environmental Research Laboratory     |
|        U.S. Environmental Protection Agency                 |
|        P.O. Box 1198                                        |
|        Ada, OK 74820                                        |
|                                                             |
|        Based on the original VLEACH (version 1.0)           |
|        developed by CH2M Hill, Redding, California          |
|        for USEPA Region IX                                  |
|-------------------------------------------------------------|
```

DVD

Polygon 1
At time = 0.00, total mass in vadose zone = 0.0000 g/sq.ft.
Mass in gas phase = 0.0000 g/sq.ft.
Mass in liquid phase = 0.0000 g/sq.ft.
Mass sorbed = 0.0000 g/sq.ft.

Polygon 1
At time = 1.00, total mass in vadose zone = 7.2281 g/sq.ft.
Mass in gas phase = 0.0000 g/sq.ft.
Mass in liquid phase = 7.2281 g/sq.ft.
Mass sorbed = 0.0000 g/sq.ft.

Since last printout at time = 0.00
Change in Total Mass = 7.2281 g/sq.ft.
Advection in from atmosphere = 9.0218 g/sq.ft.
Advection in from water table = -1.7937 g/sq.ft.
Diffusion in from atmosphere = 0.28026E-44g/sq.ft.
Diffusion in from water table = 0.34721E-38g/sq.ft.
Total inflow at boundaries = 7.2281 g/sq.ft.
Mass discrepancy = 0.47684E-06g/sq.ft.

Since beginning of run at time = 0.0
Change in Total Mass = 7.2281 g/sq.ft.
Advection in from atmosphere = 9.0218 g/sq.ft.
Advection in from water table = -1.7937 g/sq.ft.
Diffusion in from atmosphere = 0.28026E-44g/sq.ft.
Diffusion in from water table = 0.34721E-38g/sq.ft.
Total inflow at boundaries = 7.2281 g/sq.ft.
Mass discrepancy = 0.47684E-06g/sq.ft.

Polygon 1
At time = 2.00, total mass in vadose zone = 6.5209 g/sq.ft.
Mass in gas phase = 0.0000 g/sq.ft.
Mass in liquid phase = 6.5209 g/sq.ft.
Mass sorbed = 0.0000 g/sq.ft.

Since last printout at time = 1.00
Change in Total Mass = -0.70718 g/sq.ft.
Advection in from atmosphere = 9.0218 g/sq.ft.
Advection in from water table = -9.7290 g/sq.ft.
Diffusion in from atmosphere = 0.28026E-44g/sq.ft.

```
          Diffusion in from water table =     0.34721E-38g/sq.ft.
     Total inflow at boundaries =    -0.70718    g/sq.ft.
     Mass discrepancy =    -0.14305E-05g/sq.ft.

Since beginning of run at time = 0.0
     Change in Total Mass =      6.5209    g/sq.ft.
          Advection in from atmosphere =       18.044    g/sq.ft.
          Advection in from water table =     -11.523    g/sq.ft.
          Diffusion in from atmosphere =      0.56052E-44g/sq.ft.
          Diffusion in from water table =     0.69443E-38g/sq.ft.
     Total inflow at boundaries =      6.5209    g/sq.ft.
     Mass discrepancy =    -0.47684E-06g/sq.ft.


Polygon   1
At time =      3.00, total mass in vadose zone =     7.1607    g/sq.ft.
Mass in gas phase     =       0.0000    g/sq.ft.
Mass in liquid phase  =       7.1607    g/sq.ft.
Mass sorbed           =       0.0000    g/sq.ft.

Since last printout at time =       2.00
     Change in Total Mass =     0.63982    g/sq.ft.
          Advection in from atmosphere =       9.0218    g/sq.ft.
          Advection in from water table =     -8.3820    g/sq.ft.
          Diffusion in from atmosphere =      0.28026E-44g/sq.ft.
          Diffusion in from water table =     0.34721E-38g/sq.ft.
     Total inflow at boundaries =     0.63982    g/sq.ft.
     Mass discrepancy =     0.47684E-06g/sq.ft.

Since beginning of run at time = 0.0
     Change in Total Mass =      7.1607    g/sq.ft.
          Advection in from atmosphere =       27.065    g/sq.ft.
          Advection in from water table =     -19.905    g/sq.ft.
          Diffusion in from atmosphere =      0.84078E-44g/sq.ft.
          Diffusion in from water table =     0.10416E-37g/sq.ft.
     Total inflow at boundaries =      7.1607    g/sq.ft.
     Mass discrepancy =    -0.19073E-05g/sq.ft.


Polygon   1
At time =      4.00, total mass in vadose zone =     6.8031    g/sq.ft.
Mass in gas phase     =       0.0000    g/sq.ft.
Mass in liquid phase  =       6.8031    g/sq.ft.
Mass sorbed           =       0.0000    g/sq.ft.

Since last printout at time =       3.00
     Change in Total Mass =    -0.35765    g/sq.ft.
          Advection in from atmosphere =       9.0218    g/sq.ft.
          Advection in from water table =     -9.3794    g/sq.ft.
          Diffusion in from atmosphere =      0.28026E-44g/sq.ft.
          Diffusion in from water table =     0.34721E-38g/sq.ft.
     Total inflow at boundaries =    -0.35765    g/sq.ft.
     Mass discrepancy =    -0.47684E-06g/sq.ft.

Since beginning of run at time = 0.0
     Change in Total Mass =      6.8031    g/sq.ft.
          Advection in from atmosphere =       36.087    g/sq.ft.
          Advection in from water table =     -29.284    g/sq.ft.
          Diffusion in from atmosphere =      0.11210E-43g/sq.ft.
          Diffusion in from water table =     0.13889E-37g/sq.ft.
     Total inflow at boundaries =      6.8031    g/sq.ft.
     Mass discrepancy =    -0.23842E-05g/sq.ft.
```

```
Polygon   1
At time =       5.00, total mass in vadose zone =     6.7097    g/sq.ft.
Mass in gas phase     =       0.0000    g/sq.ft.
Mass in liquid phase  =       6.7097    g/sq.ft.
Mass sorbed           =       0.0000    g/sq.ft.

Since last printout at time =       4.00
               Change in Total Mass =    -0.93375E-01g/sq.ft.
                    Advection in from atmosphere =       9.0218    g/sq.ft.
                    Advection in from water table =     -9.1152    g/sq.ft.
                    Diffusion in from atmosphere =     0.28026E-44g/sq.ft.
                    Diffusion in from water table =    0.34721E-38g/sq.ft.
               Total inflow at boundaries =    -0.93373E-01g/sq.ft.
               Mass discrepancy =    -0.14305E-05g/sq.ft.

Since beginning of run at time = 0.0
               Change in Total Mass =      6.7097    g/sq.ft.
                    Advection in from atmosphere =       45.109    g/sq.ft.
                    Advection in from water table =     -38.399    g/sq.ft.
                    Diffusion in from atmosphere =     0.14013E-43g/sq.ft.
                    Diffusion in from water table =    0.17361E-37g/sq.ft.
               Total inflow at boundaries =      6.7097    g/sq.ft.
               Mass discrepancy =    -0.47684E-05g/sq.ft.


Polygon   1
At time =       6.00, total mass in vadose zone =     6.8917    g/sq.ft.
Mass in gas phase     =       0.0000    g/sq.ft.
Mass in liquid phase  =       6.8917    g/sq.ft.
Mass sorbed           =       0.0000    g/sq.ft.

Since last printout at time =       5.00
               Change in Total Mass =     0.18200    g/sq.ft.
                    Advection in from atmosphere =       9.0218    g/sq.ft.
                    Advection in from water table =     -8.8398    g/sq.ft.
                    Diffusion in from atmosphere =     0.28026E-44g/sq.ft.
                    Diffusion in from water table =    0.34721E-38g/sq.ft.
               Total inflow at boundaries =     0.18201    g/sq.ft.
               Mass discrepancy =    -0.23842E-05g/sq.ft.

Since beginning of run at time = 0.0
               Change in Total Mass =      6.8917    g/sq.ft.
                    Advection in from atmosphere =       54.131    g/sq.ft.
                    Advection in from water table =     -47.239    g/sq.ft.
                    Diffusion in from atmosphere =     0.16816E-43g/sq.ft.
                    Diffusion in from water table =    0.20833E-37g/sq.ft.
               Total inflow at boundaries =      6.8917    g/sq.ft.
               Mass discrepancy =    -0.81062E-05g/sq.ft.


Polygon   1
At time =       7.00, total mass in vadose zone =     6.9548    g/sq.ft.
Mass in gas phase     =       0.0000    g/sq.ft.
Mass in liquid phase  =       6.9548    g/sq.ft.
Mass sorbed           =       0.0000    g/sq.ft.

Since last printout at time =       6.00
               Change in Total Mass =    0.63093E-01g/sq.ft.
                    Advection in from atmosphere =       9.0218    g/sq.ft.
                    Advection in from water table =     -8.9587    g/sq.ft.
                    Diffusion in from atmosphere =     0.28026E-44g/sq.ft.
                    Diffusion in from water table =    0.34721E-38g/sq.ft.
```

```
          Total inflow at boundaries =     0.63090E-01g/sq.ft.
          Mass discrepancy =     0.23842E-05g/sq.ft.

Since beginning of run at time = 0.0
          Change in Total Mass =      6.9548    g/sq.ft.
               Advection in from atmosphere =       63.153    g/sq.ft.
               Advection in from water table =     -56.198    g/sq.ft.
               Diffusion in from atmosphere =     0.19618E-43g/sq.ft.
               Diffusion in from water table =     0.24305E-37g/sq.ft.
          Total inflow at boundaries =      6.9548    g/sq.ft.
          Mass discrepancy =    -0.66757E-05g/sq.ft.


Polygon   1
At time =      8.00, total mass in vadose zone =     6.8711    g/sq.ft.
Mass in gas phase     =       0.0000    g/sq.ft.
Mass in liquid phase  =       6.8711    g/sq.ft.
Mass sorbed           =       0.0000    g/sq.ft.

Since last printout at time =       7.00
          Change in Total Mass =    -0.83701E-01g/sq.ft.
               Advection in from atmosphere =       9.0218    g/sq.ft.
               Advection in from water table =     -9.1055    g/sq.ft.
               Diffusion in from atmosphere =     0.28026E-44g/sq.ft.
               Diffusion in from water table =     0.34721E-38g/sq.ft.
          Total inflow at boundaries =    -0.83703E-01g/sq.ft.
          Mass discrepancy =     0.19073E-05g/sq.ft.

Since beginning of run at time = 0.0
          Change in Total Mass =      6.8711    g/sq.ft.
               Advection in from atmosphere =       72.174    g/sq.ft.
               Advection in from water table =     -65.303    g/sq.ft.
               Diffusion in from atmosphere =     0.22421E-43g/sq.ft.
               Diffusion in from water table =     0.27777E-37g/sq.ft.
          Total inflow at boundaries =      6.8711    g/sq.ft.
          Mass discrepancy =    -0.19073E-05g/sq.ft.


Polygon   1
At time =      9.00, total mass in vadose zone =     6.7983    g/sq.ft.
Mass in gas phase     =       0.0000    g/sq.ft.
Mass in liquid phase  =       6.7983    g/sq.ft.
Mass sorbed           =       0.0000    g/sq.ft.

Since last printout at time =       8.00
          Change in Total Mass =    -0.72821E-01g/sq.ft.
               Advection in from atmosphere =       9.0218    g/sq.ft.
               Advection in from water table =     -9.0946    g/sq.ft.
               Diffusion in from atmosphere =     0.28026E-44g/sq.ft.
               Diffusion in from water table =     0.34721E-38g/sq.ft.
          Total inflow at boundaries =    -0.72820E-01g/sq.ft.
          Mass discrepancy =    -0.14305E-05g/sq.ft.

Since beginning of run at time = 0.0
          Change in Total Mass =      6.7983    g/sq.ft.
               Advection in from atmosphere =       81.196    g/sq.ft.
               Advection in from water table =     -74.398    g/sq.ft.
               Diffusion in from atmosphere =     0.25223E-43g/sq.ft.
               Diffusion in from water table =     0.31249E-37g/sq.ft.
          Total inflow at boundaries =      6.7983    g/sq.ft.
          Mass discrepancy =    -0.47684E-06g/sq.ft.
```

Polygon 1
At time = 10.00, total mass in vadose zone = 6.8089 g/sq.ft.
Mass in gas phase = 0.0000 g/sq.ft.
Mass in liquid phase = 6.8089 g/sq.ft.
Mass sorbed = 0.0000 g/sq.ft.

Since last printout at time = 9.00
Change in Total Mass = 0.10627E-01g/sq.ft.
Advection in from atmosphere = 9.0218 g/sq.ft.
Advection in from water table = -9.0112 g/sq.ft.
Diffusion in from atmosphere = 0.28026E-44g/sq.ft.
Diffusion in from water table = 0.34721E-38g/sq.ft.
Total inflow at boundaries = 0.10629E-01g/sq.ft.
Mass discrepancy = -0.14305E-05g/sq.ft.

Since beginning of run at time = 0.0
Change in Total Mass = 6.8089 g/sq.ft.
Advection in from atmosphere = 90.218 g/sq.ft.
Advection in from water table = -83.409 g/sq.ft.
Diffusion in from atmosphere = 0.28026E-43g/sq.ft.
Diffusion in from water table = 0.34721E-37g/sq.ft.
Total inflow at boundaries = 6.8089 g/sq.ft.
Mass discrepancy = 0.66757E-05g/sq.ft.

GROUNDWATER IMPACT OF POLYGON 1

Time	Mass flux (g/yr/sq.ft.)	Total Mass(g/yr)
1.00	3.1309	313.09
2.00	11.071	1107.1
3.00	8.0765	807.65
4.00	8.8250	882.50
5.00	9.6388	963.88
6.00	9.0703	907.03
7.00	8.6413	864.13
8.00	8.8630	886.30
9.00	9.2008	920.08
10.00	9.2422	924.22

****

****
TOTAL GROUNDWATER IMPACT

Time (yr)	Mass (g/yr)	Cumulative Mass (g)
1.00	313.09	179.37
2.00	1107.1	1152.3
3.00	807.65	1990.5
4.00	882.50	2928.4
5.00	963.88	3839.9
6.00	907.03	4723.9
7.00	864.13	5619.8
8.00	886.30	6530.3
9.00	920.08	7439.8
10.00	924.22	8340.9

VLEACH (Version 2.2a, 1996)

By:
Varadhan Ravi and Jeffrey A. Johnson
(USEPA Contractors)
Center for Subsurface Modeling Support
Robert S. Kerr Environmental Research Laboratory
U.S. Environmental Protection Agency
P.O. Box 1198
Ada, OK 74820

Based on the original VLEACH (version 1.0)
developed by CH2M Hill, Redding, California
for USEPA Region IX

DVD
1 polygons.
Timestep = 0.50 years. Simulation length = 10.00 years.
Printout every 1.00 years. Vertical profile stored every 20.00 years.
Koc = 0.0000 ml/g, 0.0000 cu.ft./g
Kh = 0.0000 (dimensionless).
Aqueous solubility = 0.81500E+06 mg/l, 23078. g/cu.ft
Free air diffusion coefficient = 0.0000 sq. m/day, 0.0000 sq.ft./yr

Polygon 1
Polygon1
Polygon area = 100.00 sq. ft.
80 cells, each cell 1.000 ft. thick.
Soil Properties:
Bulk density = 1.6200 g/ml, 45874. g/cu.ft.
Porosity = 0.4100 Volumetric water content = 0.0570
Organic carbon content = 0.00610000
Recharge Rate = 6.00000000 ft/yr
Conc. in recharge water = 53.100 mg/l, 1.5036 g/cu.ft
Atmospheric concentration = 0.0000 mg/l, 0.0000 g/cu.ft
Water table has a fixed concentration of 0.0000 mg/l, 0.0000 g/cu.ft.
with respect to gas diffusion.

VLEACH (Version 2.2a, 1996)

By:
Varadhan Ravi and Jeffrey A. Johnson
(USEPA Contractors)
Center for Subsurface Modeling Support
Robert S. Kerr Environmental Research Laboratory
U.S. Environmental Protection Agency
P.O. Box 1198
Ada, OK 74820

Based on the original VLEACH (version 1.0)
developed by CH2M Hill, Redding, California
for USEPA Region IX

Polygon1
Time: 0.000

Cell	Cgas(g/cu.ft)	Cliq(g/cu.ft)	Csol(g/g)
1	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000

			DVD
43	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000
62	0.0000	0.0000	0.0000
63	0.0000	0.0000	0.0000
64	0.0000	0.0000	0.0000
65	0.0000	0.0000	0.0000
66	0.0000	0.0000	0.0000
67	0.0000	0.0000	0.0000
68	0.0000	0.0000	0.0000
69	0.0000	0.0000	0.0000
70	0.0000	0.0000	0.0000
71	0.0000	0.0000	0.0000
72	0.0000	0.0000	0.0000
73	0.0000	0.0000	0.0000
74	0.0000	0.0000	0.0000
75	0.0000	0.0000	0.0000
76	0.0000	0.0000	0.0000
77	0.0000	0.0000	0.0000
78	0.0000	0.0000	0.0000
79	0.0000	0.0000	0.0000
80	0.0000	0.0000	0.0000

DVD.inp

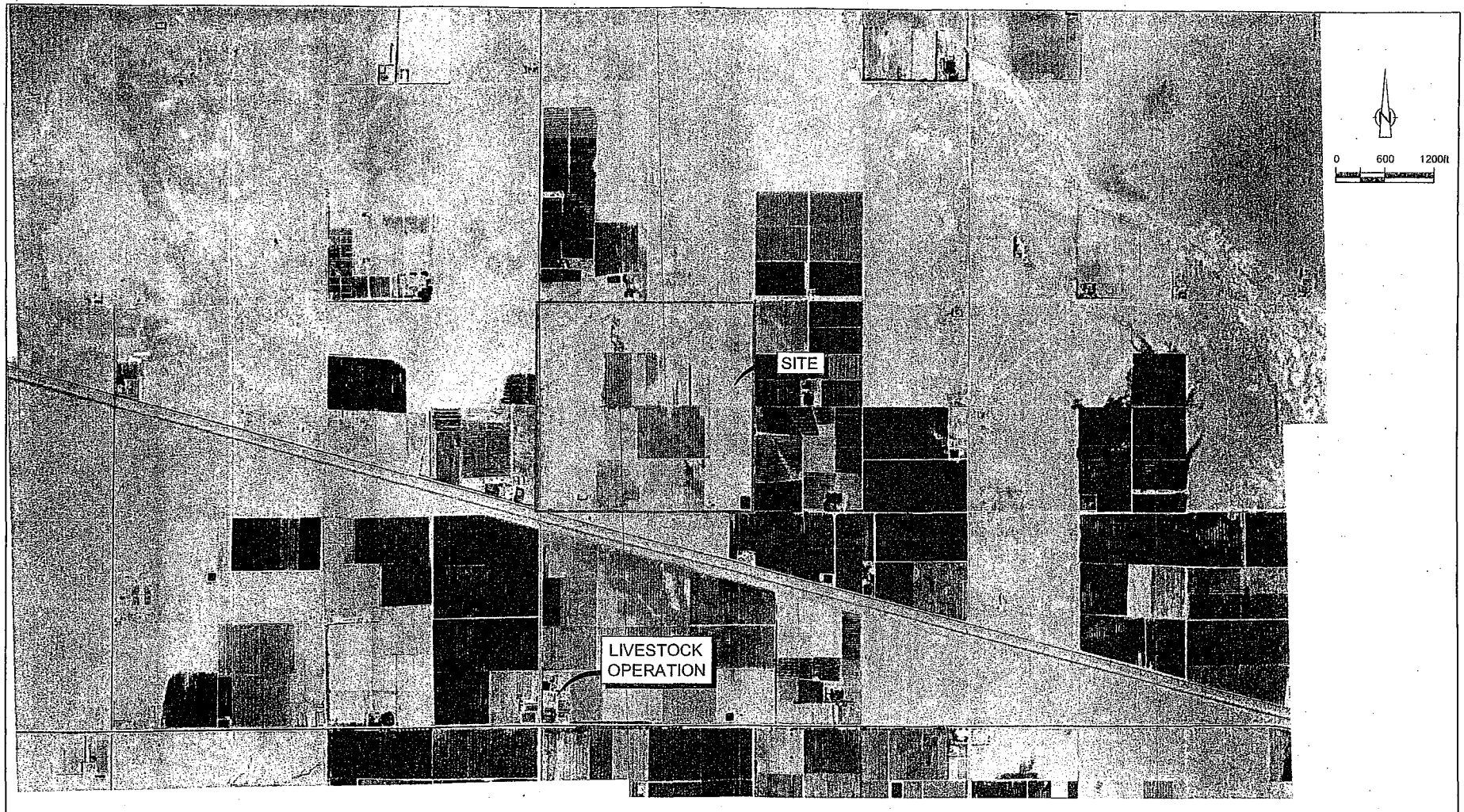
```
DVD
1
        0.5          10           .1          20
          0           0      815000           0
Polygon1
        100           1           6        1.62        0.41       0.057      0.0061
       53.1           0           0
   80Y              20
     1   10           0
    10   80           0
```

DVD_GWIMP

0.5000000	45.65673
1.000000	313.0872
1.500000	838.6734
2.000000	1107.123
2.500000	868.7427
3.000000	807.6533
3.500000	993.3880
4.000000	882.5002
4.500000	859.1582
5.000000	963.8756
5.500000	860.9286
6.000000	907.0295
6.500000	927.6160
7.000000	864.1251
7.500000	934.8029
8.000000	886.2969
8.500000	898.8437
9.000000	920.0796
9.500000	878.0098
10.00000	924.2238

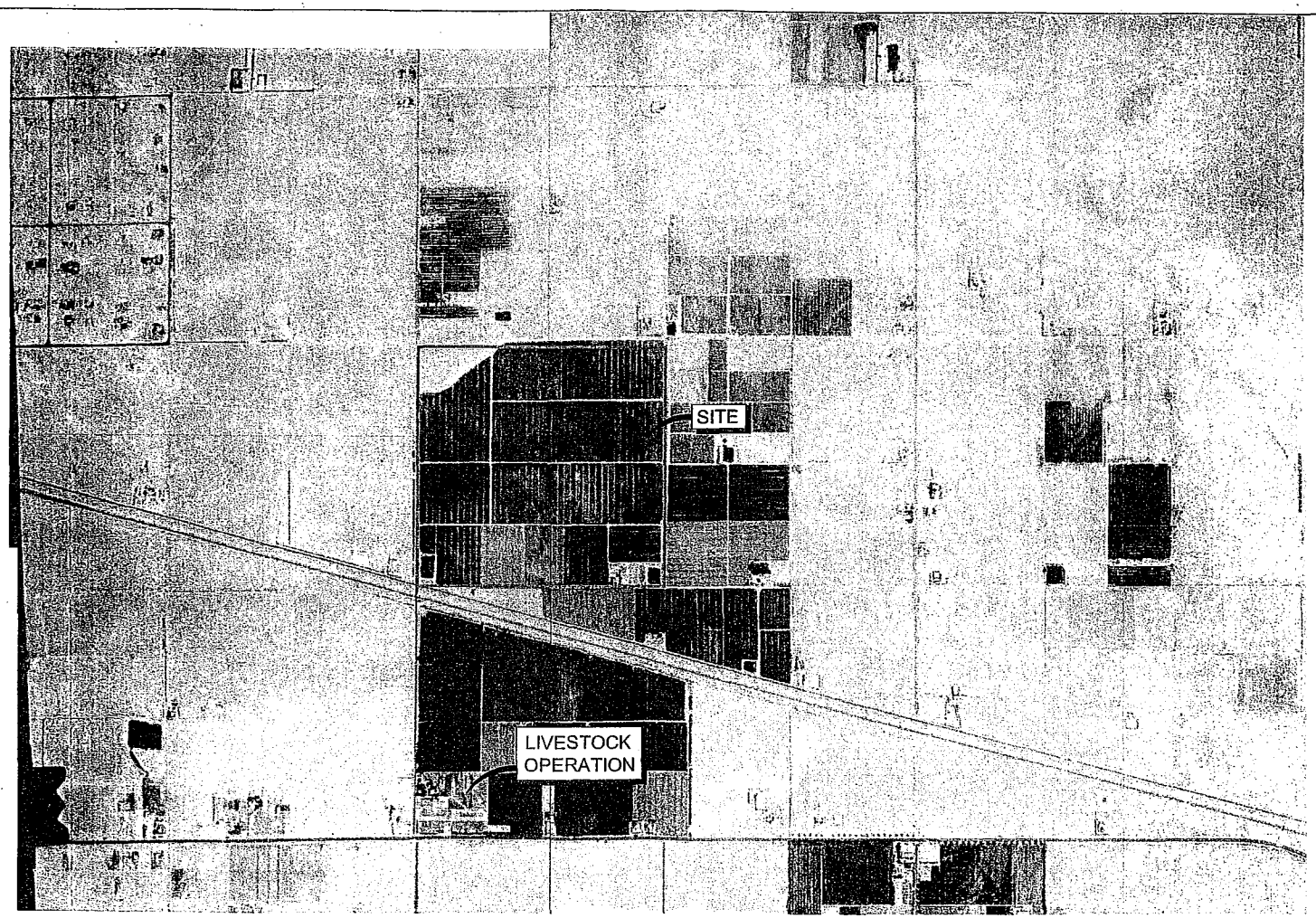
ATTACHMENT B

HISTORICAL AERIAL PHOTOS



NOTE: DARK AREAS ARE IRRIGATED LAND.

1952 AERIAL PHOTO
DESERT VIEW DAIRY
37501 MOUNTAINVIEW ROAD
Hinkley, California



NOTE: DARK AREAS ARE IRRIGATED LAND.

1970 AERIAL PHOTO
DESERT VIEW DAIRY
37501 MOUNTAINVIEW ROAD
Hinkley, California